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Applicant: Hideomi KOINUMA et al.

Appl. No.: 10/665,524

Please Amend the second paragraph on page 2 beginning on line 13 as follows:

As for the single crystal thin films, it is common that they are epitaxially grown

using a single crystal substrate. For example, there have been reported that GaN-based

single crystal thin films are formed on a single crystal sapphire substrate by an

MOCVD (Metal Organic Chemical Vapor Deposition) method or by a gas source

MBE method (Molecular Beam Epitaxial Method), or on a SiC substrate by a low

pressure metal organic vapor phase epitaxy (see, Kiyoteru Yoshida "Electronic devices

using GaN" OYOBUTURI Vol.68, No.7, pp.790 and 798 pp. 787-792 and

Kuramata et al., "Continuous-Wave Operation InGaN Laser Diodes On SiC

Substrates," pp. 797-800, OYOBUTURI, Vol. 68, No. 7, published by The Japan

Society of Applied Physics, July 10, 1999). As for the oxide-based single crystal thin

films, their epitaxial thin films are formed on a substrate composed of single crystal

strontium titanate (SrTiO₃: STO), single crystal lanthanum aluminate (LaAlO₃:LAO)

or single crystal sapphire substrate by a sputtering or PLD method (Pulsed Laser

Deposition).

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Applicant: Hideomi KOINUMA et al.

Appl. No.: 10/665,524

Please Amend the second paragraph on page 15 beginning on line 10 as follows:

Si[011] and Si[010] directions. Fig. 6A illustrates RHEED observation results of the

Figs. 6A and 6B show patterns when an electron beam is launched into the

MnS/Si (100) thin films. They exhibit a streak pattern, and it is seen from the spacing

between the acceleration voltage (25 kV) of the incident electron beam and the streak

that the lattice constant of MnS is about 5.2 Å, which nearly equal to the value

5.209 Å given by the foregoing relevant document (Kiyoteru Yoshida "Electronic

devices using GaN", OYOBUTURI Vol.68, No.7, pp.790 and 798, published by The

Japan Society of Applied Physics, July 10, 1999) (JUZA et al., "Solid Solution in

Systems ZnS/MnS, ZnSe/MnSe and ZnTe/MnTe," Journal of Inorganic and General

Chemistry, Vol. 285, pp. 61-69, 1956). Fig. 6B illustrates the RHEED observation

results of the AlN/MnS/Si (100) thin films in the [1100] direction and [0001] direction

of the AlN thin film, respectively.

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